

**REMARKS**

Claims 1-13 are pending. Claims 2 and 12 have been withdrawn. Therefore, Claims 1, 3-11 and 13 are under consideration. The Listing of Claims provided above is identical to the Listing of Claims provided in Applicants' Amendment and Response dated September 30, 2008. Additionally, for the Examiner's convenience, Applicants have reproduced the substantive arguments previously directed to the 35 U.S.C. § 103 rejections issued in the April 30, 2008. Although substantive arguments and previous amendments are included herein, Applicants believe that this Response to the Notice of Non-Compliant Amendment only affects Applicants' response to the obviousness-type double patenting rejection. Applicants believe that the Amendment and Response dated September 30, 2008, which for the Examiner's convenience is reproduced below in its entirety, is still controlling for all areas not addressed by this Response. As noted in Applicants' Amendment and Response dated September 30, 2008, support for the amendments to Claims 1 and can be found throughout the specification as originally filed and in, at least, Examples 13 and 14. Applicants believe that the amendments herein do not constitute new matter nor raise new issues.

**INTERVIEW SUMMARY**

Applicants would like to thank Examiner Ahmed for his helpful comments and insights regarding the non-statutory, obviousness-type double patenting rejection and the Notice of Non-Compliant Amendment that were provided in the February 9, 2009 interview. During the interview, Applicants and the Examiner discussed the Notice of Non-Compliant Amendment and what is required for an amendment to be considered responsive. In particular, Applicants' representative, Dr. Brignati, explained that Applicants' previous Amendment and Response dated September 30, 2008 addressed the provisional non-statutory, obviousness-type double patenting rejections. As the Examiner had not yet identified any allowable subject matter in the present application, Dr. Brignati further requested that the Examiner withdraw the rejections. Examiner Ahmed refused to withdraw the rejections. Rather, Examiner Ahmed explained that a new unwritten initiative in his art unit requires a more substantive examination of responses to non-statutory, obviousness-type double patenting rejections. As part of this unwritten initiative, Examiner Ahmed further stated that Applicants' response must include substantive arguments directed to the merits of the non-statutory, obviousness-type double patenting rejections.

Applicants' representative, Dr. Mary An Merchant, had a conversation with the Supervising Primary Examiner for art unit 1615, Michael Woodward. During this conversation, Dr. Merchant and Examiner Woodward discussed the Notice of Non-Compliant Amendment. Examiner Woodward also explained that a new unwritten initiative in his art unit required a more substantive response directed to the merits of the non-statutory, obviousness-type double patenting rejections.

**NOTICE OF NON-COMPLIANT AMENDMENT**

The Examiner has refused entry of the Amendment and Response to Office Action filed on September 30, 2008 as allegedly failing to be fully responsive. On January 9, 2009, the Office issued a Notice of Non-Compliant Amendment. In the Notice, the Examiner acknowledged receipt of Applicants' (1) Request for Continued Examination and (2) Amendment and Response. Nevertheless, the Examiner stated that Applicants' Amendment and Response was not fully responsive to the Final Office Action. Applicants now submit a Response to the Notice of Non-Compliant Amendment.

In the September 30, 2008 Amendment and Response, Applicants respectfully submitted that Applicants could not properly evaluate the merits of the provisional double patenting rejections until such time that the Examiner identified allowable subject matter. Applicants stated that once the Examiner identified allowable subject matter, Applicants would consider the filing of a terminal disclaimer. Nevertheless, rather than withdraw these provisional double-patenting rejections until such time that the provisional status could be removed, the Examiner issued a Notice of Non-Compliant Amendment, thereby requiring more substantive arguments directed to the non-statutory, obviousness-type double-patenting rejections.

In the Notice of Non-Compliant Amendment dated January 9, 2009, the Examiner stated that "a complete response (if a terminal disclaimer is not filed) must include substantive arguments directed to the obviousness-type double patenting rejections. See 37 CFR 1.111." Applicants note that 37 C.F.R. § 1.111, which addresses whether a response is a *bona fide* response and compliant, states:

In order to be entitled to reconsideration or further examination, the applicant or patent owner must reply to the Office action. *The reply by the applicant or patent owner must be reduced to a writing which distinctly and specifically points out the supposed errors in the*

*examiner's action and must reply to every ground of objection and rejection in the prior Office action.* The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references. If the reply is with respect to an application, a request may be made that objections or requirements as to form not necessary to further consideration of the claims be held in abeyance until allowable subject matter is indicated. *The applicant's or patent owner's reply must appear throughout to be a bona fide attempt to advance the application or the reexamination proceeding to final action.* A general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references does not comply with the requirements of this section.

(Emphasis added). Applicants' Amendment and Response dated September 30, 2008 complies entirely with 37 C.R.F. § 1.111. Specifically, Applicants provided substantive arguments to the multiple 35 U.S.C. § 103(a) rejections and properly addressed the provisional double-patenting rejections. Specifically, Applicants noted that once the Examiner removed the provisional status of the double patenting rejections by allowing one of the pending applications, Applicants would take appropriate steps in the *appropriate application*. On page 2 of Notice of Non-Compliant Amendment, the Examiner conceded this point by stating "Since the above-mentioned reply appears to be bona fide . . ." Applicants respectfully submit that the standard noted above for responsiveness has been met. Because Applicants' prior Amendment and Response was fully responsive, Applicants believe that the Notice of Non-Compliant Amendment has been overcome. Therefore, Applicants respectfully request that Examiner withdraw this Notice.

Regarding the non-statutory, obviousness-type double patenting rejections, the Examiner stated in the interview of February 9, 2009 that the Examiner's art unit has propagated a new unwritten initiative that requires Applicants' Amendment and Response to include substantive arguments directed to provisional non-statutory, obviousness-type double patenting rejections. This position is echoed on page 2 of the Notice of Non-Compliant Amendment. Applicants respectfully point out that unwritten initiatives in the Examiner's art unit, while significant for the Examiner, are not the controlling rule for the Applicants.

As noted above, the rule for responsiveness is put forth in 37 C.R.F. § 1.111. Applicants respectfully remind the Examiner that neither the 1952 Patent Act nor the Administrative Procedure Act (APA) granted to Examiner's art unit the power to promulgate binding rules. At

this time, only Congress and the U.S.P.T.O. have such authority. Moreover, Applicants note that the unwritten initiative, even if controlling, was not made available to the public for review and comment (as required by the APA). Until such time that the proper procedures for the introduction of new rules is followed, this lack of public availability immediately makes any such rule invalid. Thus, the art unit's new unwritten initiative has no effect, and continuing to give credence to such a decision is legal error.

Furthermore, Applicants respectfully point out that compliance with an unwritten art unit-specific rule creates an unreasonable burden on all applicants with pending matters before the art unit. Specifically, the Examiner's art unit-specific unwritten initiative imposes a more stringent burden than afforded other applicants, thus making examination more difficult for those Applicants assigned to this particular art unit. Moreover, because the rule was unwritten, Applicants can never be as responsive as required by the unwritten requirement unless, by chance, Applicants offer an argument to an obviousness-type double patenting rejection, or Applicants preemptively file a terminal disclaimer. Because such a rule would impose an unreasonable burden, a holding of non-responsiveness for failure to comply with the unwritten initiative cannot be maintained. Applicants respectfully request the Notice of Non-Compliant Amendment be withdrawn.

Applicants further note that the art unit's unwritten initiative that requires Applicants to submit substantive arguments to provisional double-patenting rejections is contrary to current patent law. In particular, M.P.E.P. § 804.02(I)(B)(1), which addresses provisional double-patenting rejections between co-pending applications, states:

If a "provisional" nonstatutory obviousness-type double patenting (ODP) rejection is the *only rejection remaining in the earlier filed of the two pending applications*, while the later-filed application is rejectable on other grounds, *the examiner should withdraw that rejection and permit the earlier-filed application to issue as a patent without a terminal disclaimer*. If the ODP rejection is the only rejection remaining in the later-filed application, while the earlier-filed application is rejectable on other grounds, *a terminal disclaimer must be required in the later-filed application before the rejection can be withdrawn*.

(Emphasis added). The section continues:

If "provisional" ODP rejections in two applications are the only rejections remaining in those applications, *the examiner should withdraw the ODP rejection in the earlier filed application thereby permitting that*

*application to issue without need of a terminal disclaimer.* A terminal disclaimer must be required in the later-filed application before the ODP rejection can be withdrawn and the application permitted to issue.

Applicants respectfully point out that the M.P.E.P. does not contain language that requires Applicants to file substantive arguments directed at the double patenting rejections in lieu of filing a terminal disclaimer. In fact, and quite to the contrary, as the present application is the parent application, the M.P.E.P. indicates that “a terminal disclaimer filed in a parent application normally has no effect on a continuing application claiming filing date benefits of the parent application under 35 U.S.C. 120.” M.P.E.P. § 1490.

Applicants respectfully submit that the policy behind a terminal disclaimer is to prevent patent term extension through the filing of similar though non-identical patent claims. Additionally, the filing of the terminal disclaimer permanently links together the two applications to prevent the separate assignment of the applications. However, this policy only serves this purpose if a patent exists, and only then if the disclaimer is submitted in the later filed application would benefit from a term extension. Requiring a terminal disclaimer before either application becomes a patent ignores the possibility that the later application may fail to be patented. For example, if a terminal disclaimer is filed in the parent application linking the application to the child application, and the child application becomes abandoned after the parent is patented, then there would immediately exist, a question to the effect of the terminal disclaimer. Moreover, there is no known procedure for disclaiming a terminal disclaimer.

Applicants also respectfully point out that during prosecution it is possible that limitations could be entered into the claims of the child application, which limitations are wholly non-obvious over the claims in the parent. In such an instance, there would be no need for the terminal disclaimer as the claims would be non-obvious over the claims in the patent. Requiring a terminal disclaimer in the parent application before such changes to the child occurred would immediately deprive the Applicants of rights in the parent application to which they would otherwise have been entitled. For this reason, the proper place for the terminal disclaimer is in the child application. The present application is the parent application and should not have forced upon it a requirement to disclaim term to which it may be entitled. Nor should the present application have forced upon it a requirement to make arguments over claims presently in flux.

Furthermore, Applicants respectfully note that prior to Applicants’ Amendment and Response filed on September 30, 2008, Applicants had not yet successfully convinced the

Examiner that the present claims were patentable over the prior art. Hence, it is entirely possible that the present claims will be amended again in the future such that they are non-obvious variants over the claims in the related applications. In such a situation, no terminal disclaimer would be needed. As noted above, by filing a terminal disclaimer prior to the existence of a patent, Applicants could be sacrificing rights to which they were entitled.

Moreover, Applicants respectfully point out that the Amendment and Response filed on September 30, 2008 specifically conveyed Applicants' willingness to file a terminal disclaimer in either or both Application Serial Nos. 11/472,536 and 11/638,311 once the present application issues as a patent, assuming that the claims in those applications are determined to be obvious variants over any allowed claims in the present application. Thus, Applicants' Amendment and Response not only shows compliance with the existing rules, but is also a *bona fide* effort to advance prosecution. Applicants respectfully remind the Examiner that this is all that 37 C.R.F. § 1.111 requires for responsiveness. Because Applicants' Amendment and Response filed on September 30, 2008 complied with the rules governing provisional double patenting rejections and showed an effort to advance prosecution, Applicants' Amendment and Response was fully responsive and should be considered on its merits. Applicants respectfully submit that the Notice of Non-Compliant Amendment has been overcome and respectfully request its withdrawal.

**REJECTION OF CLAIMS 1 AND 5-8 UNDER 35 U.S.C. § 103(a)**

The Examiner stated that Sugahara *et al.* "teach[] a method of preparing a mineral composition comprising: admixing clay soil with water and an acid to form a slurry; allowing particles of the slurry to settle; and concentrating the liquid . . . [and] that this method is beneficial because it leads to effective utilization of acid and the extracted product." Applicants traverse this rejection.

A claimed invention is patentable when the prior art fails to teach the claimed subject matter as a whole. 35 U.S.C. § 103(a); *see also* M.P.E.P. § 2141. The inquiries related to obviousness that are most pertinent to the current rejections are determining the scope and content of the prior art and ascertaining the differences between the claimed invention. The prior art references must teach or suggest all the claim features as a whole.

Applicants respectfully submit that Sugahara *et al.* fail to teach the claimed subject matter as a whole. Applicants submit that Sugahara *et al.* teach a "process for producing active clay of

finely divided silica.” (Sugahara *et al.*, Col. 1, lines 4-5). Sugahara *et al.* teach a method wherein the first step requires the combination of an alumina-silica clay with an acid to form a “nonfluid solid reaction product.” (See Sugahara *et al.*, Col. 3, lines 57-58). The addition of the acid to the dry clay is taught by Sugahara *et al.* as being the step that differentiates the method of Sugahara *et al.* from a method where clay is added to a large amount of a dilute acid solution. (See Sugahara *et al.*, Col. 1, line 51 to Col. 2, line 5). Sugahara *et al.* teach that sufficient acid must be added to the dry clay to remove “basic metal constituents,” (See Sugahara *et al.*, Col. 3, line 70 to Col. 4, line 6). Sugahara *et al.* teach that the acid is “elut[ed] and [the acid] remov[es] a part or almost all of the basic metal constituents contained in these clays to produce active clay or finely divided silica.” (Sugahara *et al.*, Col. 1, lines 18-20). Sugahara *et al.* teach a method for producing active clay. The product produced by the method disclosed by Sugahara *et al.* is a clay composition lacking basic metal constituents, not the mineral composition of the claimed invention.

Sugahara *et al.* neither teach nor suggest a method for preparing a mineral composition as recited in the currently pending claims. Sugahara *et al.* teach a method for the production of an active clay. Sugahara *et al.* teach that the extracted mineral components are removed from the mineral composition and are a waste product in the production of active clay. Indeed, all of the Examples provided by Sugahara *et al.* teach a method of making an active clay. Sugahara *et al.* does not teach any use for the extracted minerals.

Furthermore, Sugahara *et al.* does not teach a method for preparing a mineral composition comprising concentrating an acidic liquid from an extracted soil to create a concentrated liquid mineral composition. The Examiner stated that “Sugahara *et al.* teach[] a method of preparing a mineral composition comprising: . . . concentrating the liquid (see Col. 6, lines 51-54).” At Col. 6, lines 51-54, Sugahara *et al.* expressly states “[a]ccording to this invention, the basic metal constituents contained in the solid reaction product are extracted and removed therefrom with an aqueous medium of a pH not more than 1, and preferably not more than 0.5.” This excerpt from Sugahara *et al.* referenced by the Examiner does not teach or suggest a method comprising concentrating an acidic liquid from an extracted soil to create a concentrated liquid mineral composition. Quite the opposite, this excerpt from Sugahara *et al.* further confirms that the basic metal constituents of the soil composition are extracted and discarded in the method of Sugahara *et al.* There is no teaching or suggestion in Sugahara *et al.*

of a method comprising concentrating an acidic liquid from an extracted soil to create a concentrated liquid mineral composition. Therefore, Sugahara *et al.* fails to teach or suggest all the claim features of the presently claimed invention as a whole. As a result, Applicants respectfully request the Examiner to withdraw this rejection.

**REJECTION OF CLAIMS 1, 3, 4, 10, AND 11 UNDER 35 U.S.C. § 103(a)**

Claims 1, 3, 4, 10, and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,617,215 to Sugahara *et al.* in view of U.S. Patent No. 4,904,627 to Bhattacharyya. The Examiner stated that Sugahara *et al.* “teach[] a method of preparing a mineral composition, [and] . . . Bhattacharyya teaches a process for producing an alkaline earth metal, aluminum-containing spinel/clay composition . . . compris[ing]: the powder of instant claim 2; the spray drying of instant claim 4; the edible acid of instant claim 10; and, the citric acid of instant claim 11.” The Examiner states that “it would have been obvious to a person of ordinary skill in the art at the time the invention was made to disclose a method of preparing a mineral composition by extraction of clay soil with citric acid followed by spray drying to formulate a powder as taught by Sugahara [*et al.*] in view of Bhattacharyya.” Applicants traverse this rejection.

Applicants respectfully submit that Sugahara *et al.* and Bhattacharyya, either individually or combined, fail to teach or suggest the claimed subject matter as a whole. Applicants respectfully submit that Sugahara *et al.* teach a “process for producing an active clay of finely divided silica.” (Sugahara *et al.*, Col. 1, lines 4-5). Sugahara *et al.* teach that sufficient acid must be added to a dry clay to remove “basic metal constituents” (*See* Sugahara *et al.*, Col. 3, line 70 to Col. 4, line 6). Sugahara *et al.* teach that the acid is “elut[ed] and [the acid] remov[es] a part or almost all of the basic metal constituents contained in these clays to produce active clay or finely divided silica.” (Sugahara *et al.*, Col. 1, lines 18-20). The product produced by the method disclosed by Sugahara *et al.* is a clay composition lacking basic metal constituents, not the mineral composition of the claimed invention.

Sugahara *et al.* neither teaches nor suggests a method for preparing a mineral composition as recited in the currently pending claims. In contrast, Sugahara *et al.* teach a method for the production of active clay. Sugahara *et al.* teach that the extracted mineral



components are removed from the mineral composition and are a waste product in the production of active clay. Sugahara *et al.* does not teach any use for the extracted minerals.

The teachings of Bhattacharyya do not cure the deficiencies of Sugahara *et al.* Bhattacharyya teaches a process for producing an alkaline earth metal, aluminum-containing spinel/clay composition. The process of Bhattacharyya “comprises: a) combining (1) an acidic, aluminum-containing composition . . . and (2) a basic, alkaline earth metal-containing composition to form a [gel] mixture; (b) mixing the gel with kaolin clay to form a co-gel; [and] (c) calcining the co-gel mixture to form the alkaline earth metal, aluminum-containing spinel composition in a kaolin clay matrix.” (Bhattacharyya, Col. 1, lines 53-60). Thus, Bhattacharyya teaches a dried clay composition enriched with an alkaline earth metal and an aluminum containing composition.

The method of Bhattacharyya, however, does not teach a method comprising separating an acidic liquid and concentrating the separated acidic liquid. Bhattacharyya teaches a method where acidic, aluminum-containing composition, the basic, alkaline earth metal-containing composition are gelled together with a kaolin clay. The gelled clay of Bhattacharyya is then dried and calcined. The method of Bhattacharyya only teaches a method comprising drying and calcining of a supplemented gelled clay. Bhattacharyya does not teach separating or concentrating an acidic liquid mineral composition derived from a clay soil. Therefore, the teachings of Bhattacharyya do not cure the deficiencies of Sugahara *et al.*

Considering that the combination of Bhattacharyya and Sugahara *et al.* do not teach a method comprising concentrating an acidic liquid from an extracted soil to create a concentrated liquid mineral composition, Bhattacharyya and Sugahara *et al.*, either individually or combined, do not teach or suggest the presently claimed invention. Therefore, Bhattacharyya and Sugahara *et al.* fails to teach or suggest all the claim features as a whole. Applicants respectfully request the Examiner to withdraw this rejection.

**REJECTION OF CLAIMS 1, 9, AND 13 UNDER 35 U.S.C. § 103(a)**

Claims 1, 9, and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,617,215 to Sugahara *et al.* in view of U.S. Patent Application Publication No. 2004/0258597 to Michalakos *et al.* The Examiner stated that Sugahara *et al.* “teach[] a method of preparing a mineral composition, [and] . . . water purification by reverse osmosis was known in

the art at the time the instant application was filed, as shown by Michalakos [*et al.*].” The Examiner stated that “it would have been obvious to a person of ordinary skill in the art at the time the invention was made to disclose a method of preparing a mineral composition by extraction using water purified by reverse osmosis as taught by Sugahara in view of Michalakos [*et al.*].” Applicants traverse this rejection.

Applicants respectfully submit that Sugahara *et al.* and Michalakos *et al.*, either individually or combined, fail to teach or suggest the claimed subject matter as a whole. Applicants respectfully submit that Sugahara *et al.* teach a “process for producing an active clay of finely divided silica.” (Sugahara *et al.*, Col. 1, lines 4-5). Sugahara teaches that sufficient acid must be added to dry clay to remove “basic metal constituents.” (See Sugahara, Col. 3, line 70 to Col. 4, line 6). Sugahara *et al.* teach that the acid is “elut[ed] and [the acid] remov[es] a part or almost all of the basic metal constituents contained in these clays to produce active clay or finely divided silica.” (Sugahara *et al.*, Col. 1, lines 18-20). The product produced by the method disclosed by Sugahara *et al.* is a clay composition lacking basic metal constituents, not the mineral composition of the claimed invention.

Sugahara *et al.* neither teaches nor suggests a method for preparing a mineral composition that comprises basic metal constituents. In contrast, Sugahara *et al.* teach a method for the production of an active clay, which lacks acid-extractable components. Sugahara *et al.* teach that the extracted mineral components are removed from the mineral composition and are a waste product in the production of active clay. Sugahara *et al.* does not teach any use for the extracted minerals.

The teachings of Michalakos *et al.* do not cure the deficiencies of Sugahara *et al.* Michalakos *et al.* teach systems and methods for the recovery and purification of water, wherein a reverse osmosis system is used to separate potable water from impurities. (See Michalakos *et al.*, ¶ 64). The method of Michalakos *et al.* does not teach the method of the currently pending claims. Michalakos *et al.* do not teach separating or concentrating of an acidic liquid mineral composition derived from a clay soil.

Considering that the combination of Michalakos *et al.* and Sugahara *et al.* do not teach a method as recited by the currently pending claims, Michalakos *et al.* and Sugahara *et al.*, either individually or combined, do not teach or suggest the presently claimed invention. Therefore,

Michalakos *et al.* and Sugahara *et al.* fail to teach or suggest all the claim features as a whole. Applicants respectfully request the Examiner to withdraw this rejection.

**REJECTION OF CLAIMS 1, 3-11, AND 13 UNDER NONSTATUTORY DOUBLE PATENTING**

Claims 1, 3-11, and 13 are provisionally rejected on the ground of non-statutory, obviousness-type double patenting as being unpatentable over Claims 1-7 of the co-pending U.S. Patent Application Serial No. 11/472,536. Applicants acknowledge the rejection. When claims are found to be allowable, thereby necessitating the removal of the provisional status of the rejection, Applicants will formally respond to the double patenting rejection in the appropriate application. In the event that Claims 1-7 of the co-pending U.S. Patent Application Serial No. 11/472,536 issue as a patent before the claims in the present application are allowed and the double patenting rejection is applicable, Applicants will file a terminal disclaimer in the present application.

Claims 1, 3-11, and 13 are provisionally rejected on the ground of non-statutory, obviousness-type double patenting as being unpatentable over Claim 1 of the co-pending U.S. Patent Application Serial No. 11/638,311. Applicants acknowledge the rejection. When claims are found to be allowable, thereby necessitating the removal of the provisional status of the rejection, Applicants will formally respond to the double patenting rejection in the appropriate application. In the event that Claim 1 of the co-pending U.S. Patent Application Serial No. 11/638,311 issues as a patent before the claims in the present application are allowed and the double patenting rejection is applicable, Applicants will file a terminal disclaimer in the present application.

In view of the above Amendments and Remarks, reconsideration and allowance of the application are believed to be merited and are respectfully requested. The Examiner is invited to directly contact the undersigned if doing so will expedite the prosecution of this application.

A credit card payment in the amount of \$1,175, which represents the small entity fee under 37 C.F.R. § 1.17(a)(5) for a five (5) month extension of time and a Request for a five (5) month Extension of Time. Applicants believe that this amount is correct; however, Applicants hereby authorize the Commissioner to charge to Deposit Account No. 14-0629 any additional fees that may be required, or credit to the same account any overpayment of fees.

Respectfully submitted,

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I hereby certify that this correspondence, including any items indicated as attached or included, is being transmitted by EFS-WEB on the date indicated below.

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Mary Anthony Merchant, Ph.D.

June 23, 2009  
Date